

2. (Amended) A method of claim 1 wherein the reducing agent has a standard electrode potential ranging from -400 mV to -2400 mV at 25°C with respect to the standard hydrogen electrode, and the reducing agent being at least one species selected from the group consisting of the reduced iron, the iron-silicon alloy, the titanium alloy, the zinc alloy, the manganese alloy, the aluminum alloy, the magnesium alloy, and the calcium alloy.

B1
3. (Amended) The method of claim 1 wherein the reducing agent comprises the reduced iron.

Please cancel claim 4 without prejudice to the subject matter thereof.

Please amend claim 5 as follows:

B2
5. (Amended) The method of claim 1 wherein the reducing agent being at least one species selected from the group consisting of the iron-silicon alloy, a titanium-silicon alloy, a titanium-aluminum alloy, a zinc-aluminum alloy, a manganese-magnesium alloy, an aluminum-zinc-calcium alloy, an aluminum-tin alloy, an aluminum-silicon alloy, a magnesium-manganese alloy and a calcium-silicon alloy.

Please cancel claim 6 without prejudice to the subject matter thereof.

Please amend claims 7 to 17 as follows:

7. (Amended) The method of claim 36 wherein the reducing agent is an organic acid or derivative thereof, hypophosphorous acid or derivative thereof, or a sulfide salt.

B3
8. (Amended) The method of claim 1 wherein the reducing agent is a powder having a diameter up to 500 μm .

9. **(Amended)** The method of claim 1 wherein the contaminated matter has a water content of at least 25 percent by weight.

10. **(Amended)** The method of claim 1, further comprising the step of maintaining the contaminated matter in a pH ranging from 4.5 to 9.0 subsequent to the adding step.

11. **(Amended)** The method of claim 1, further comprising the step of maintaining the contaminated matter in a pH ranging from 4.5 to 9.0 under a reducing atmosphere subsequent to the adding step.

12. **(Amended)** The method of claim 1, further comprising the steps of adding an organic compost, a compostable organic material, a waste water containing organic matter or a waste containing organic matter to the contaminated matter and mixing thereof.

B3 13. **(Amended)** A method for purifying soil/sediment or sludge contaminated with a halogenated organic compound, which method comprises the step of:

adding a reducing agent to the contaminated matter, the reducing agent having a standard electrode potential ranging from 130 mV to -2400 mV at 25°C with respect to the standard hydrogen electrode, the reducing agent being at least one species selected from the group consisting of reduced iron, an iron-silicon alloy, a titanium alloy, a zinc alloy, a manganese alloy, an aluminum alloy, a magnesium alloy and a calcium alloy, whereby an oxidation reduction potential of the contaminated matter reduced is maintained at not more than -350 mV for at least 5 days by adding the reducing agent.

14. **(Amended)** The method of claim 13 wherein the reducing agent has the standard electrode potential ranging from -445 mV to -2400 mV at 25°C with respect to the standard hydrogen electrode, and the reducing agent is at least one species selected from the group

consisting of the iron-silicon alloy, the titanium alloy, the zinc alloy, the manganese alloy, the aluminum alloy, the magnesium alloy, and the calcium alloy.

15. (Amended) The method of claim 14 wherein the contaminated matter prior to the addition of the reducing agent comprises 0.1 g to 100 g of an iron compound based on 1 kg of a dry weight of the contaminated matter.

16. (Amended) The method of claim 14 wherein the contaminated matter prior to the addition of the reducing agent comprises 1 g to 100 g of an iron compound based on 1 kg of a dry weight of the contaminated matter, and the iron compound comprises iron hydroxide ($\text{Fe}(\text{OH})_3$) or triiron tetraoxide (Fe_3O_4).

B3 17. (Amended) The method of claim 15 wherein the reducing agent is at least one species selected from the group consisting of the iron-silicon alloy, titanium-silicon alloy, titanium-aluminum alloy, zinc-aluminum alloy, manganese-magnesium alloy, aluminum-zinc-calcium alloy, aluminum-tin alloy, aluminum-silicon alloy, magnesium-manganese alloy and calcium-silicon alloy.

Please cancel claim 18 without prejudice to the subject matter thereof.

Please amend claims 19, 20 and 28 to 35 as follows:

B4 19. (Amended) A method of claim 38 wherein the reducing agent is an organic acid or derivative thereof, hypophosphorous acid or derivative thereof, or a sulfide salt.

20. (Amended) The method of claim 13 wherein the reducing agent is a powder having a diameter of up to 500 μm .

28. **(Amended)** A method of purifying a contaminated soil, sediment or sludge containing a halogenated compound and a solid matter, which method comprises the step of:

mixing a reducing agent and a water-soluble organic nutritional liquid containing a nutritional source for a heterotrophic anaerobic microorganism and water with the contaminated matter, the reducing agent having a standard electrode potential ranging from 130 mV to -2400 mV at 25°C with respect to the standard hydrogen electrode, wherein the mixing step includes a step of adjusting the contaminated matter at pH ranging from 4.5 to 9.0, whereby an oxidation reduction potential of the contaminated matter reduced is maintained at not more than -350 mV for at least 5 days by adding the reducing agent; and

keeping the mixture in a condition such that air hardly penetrates through a matrix of said mixture.

29. **(Amended)** The method of claim 28 wherein the reducing agent is in a powder form and wherein the nutritional liquid is added to the contaminated matter and mixed thereof, and then the reducing agent is added to the resultant mixture and further mixed therewith.

30. **(Amended)** The method of claim 28 wherein the reducing agent is a powder having a diameter up to 500 μm .

31. **(Amended)** A method of claim 28 wherein the reducing agent is at least one species selected from the group consisting of reduced iron, iron-silicon alloy, titanium alloy, zinc alloy, manganese alloy, aluminum alloy, magnesium alloy and calcium alloy.

32. **(Amended)** The method of claim 28 wherein 1 to 10 percent by volume, based on the contaminated matter, of the nutritional liquid is added to the contaminated matter and mixed therewith as a first step; and then an amount larger than the amount of the first step of the nutritional liquid is added to the contaminated matter and mixed therewith as a second step.

33. (Amended) The method of claim 28 wherein:

1 to 5 percent by volume, based on the contaminated matter, of the nutritional liquid is added to the contaminated matter and mixed therewith as a first step;

the nutritional liquid is added to the contaminated matter and mixed therewith as a second step wherein a sum of the nutritional liquids added in the first step and the second step amounts 5 to 10 percent by volume, based on the contaminated matter, of the contaminated liquid; and the nutritional liquid is added to the contaminated matter and mixed therewith as a third step wherein an amount of the nutritional liquid added in the third step is more than an amount of the nutritional liquid added in either the first step or the second step.

34. (Amended) The method of claim 28 wherein the reducing agent is a water soluble compound, and the reducing agent is dissolved in the nutritional liquid.

35. (Amended) The method of claim 28 wherein in the keeping step the mixture is kept at a temperature ranging from 17°C to 60°C for at least an initial three days.

Please add the following new claims:

36. (New) A method for purifying soil, sediment or sludge contaminated with a halogenated organic compound, which method comprises the step of:

adding a reducing agent and a water-soluble organic nutritional source for a heterotrophic anaerobic microorganism to the contaminated matter, the reducing agent being a water-soluble compound having a standard electrode potential ranging from 130 mV to -2400 mV at 25°C with respect to the standard hydrogen electrode, whereby an oxidation reduction potential of the contaminated matter reduced is maintained at not more than +130 mV for at least 5 days by adding the reducing agent.

37. (New) A method of claim 1 wherein the reducing agent is added in the form of slurry or added to the contaminated matter in the form of slurry.

38. (New) A method for purifying soil, sediment or sludge contaminated with a halogenated organic compound, which method comprises the step of:

adding a reducing agent to the contaminated matter, the reducing agent being a water-soluble compound having a standard electrode potential ranging from 130 mV to -2400 mV at 25°C with respect to the standard hydrogen electrode, whereby an oxidation reduction potential of the contaminated matter reduced is maintained at not more than +130 mV for at least 5 days by adding the reducing agent.

39. (New) The method of claim 13 wherein the reducing agent is added in the form of slurry or added to the contaminated matter in the form of slurry.

40. (New) The method according to claim 1 wherein halogenated organic compounds are completely eliminated.